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**SCENIC INVENTORY OF**  
**CHURCH CREEK AND BOHICKET CREEK**

by

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For the

Charleston Harbor Project of the  
South Carolina Coastal Council,  
Charleston, South Carolina

and the

Lowcountry Open Land Trust,  
Charleston, South Carolina.

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### The Charleston Harbor Project

The Charleston Harbor Project is a five year Special Area Management Plan of the South Carolina Coastal Council which is funded by the National Oceanic and Atmospheric Administration. The Charleston Harbor Project has been in existence since 1991 with a primary goal of maintaining and improving the water quality of the estuary while maintaining its many uses and resources. The Charleston Harbor estuary is composed of the watersheds surrounding the Ashley, Cooper, Wando, and Stono rivers. The project's boundaries extend from the North Edisto river inland to Lake Moultrie, around to the Isle of Palms.

The Project will examine how growth will affect the estuary, its natural resources and adjoining lands. By focusing on issues which affect water quality we should be able to act on potential problems before they occur. The CHP believes that prevention is the best and most cost effective cure. Some of the issues that are being examined include population densities, land use, point source discharges, and storm water runoff. The Scenic Inventory is part of a continuing process to develop baseline data in an effort to promote responsible planning.

### The Lowcountry Open Land Trust

The Lowcountry Open Land Trust was founded in 1986 as a privately supported, tax-exempt, South Carolina nonprofit organization chartered and authorized to hold conservation easements on land of special scenic and aesthetic significance in the Lowcountry. The Land Trust accepts donations of land and also helps landowners establish legal restrictions that preserve the conservation values of their property. In addition to protecting historic plantations and farm lands, the Land Trust works with landowners in establishing vegetative buffers along scenic roads and waterways. To date, the Land Trust is supported by more than 575 members and has assisted land owners and communities in protecting approximately 7,000 acres of land.

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We would also like to thank the members of the advisory group for their suggestions and insight in every aspect and phase of the project. They are Ms. Karen McNamara and Mr. Bill Turner of the Charleston County Planning Department, Mr. John Hope of the Wadmalaw Land Planning Committee, Ms. Martha Harris and Dr. John Metcalf of the Johns Island Commission, Mr. John Hildreth of the National Trust for Historic Preservation, Mr. James Hackett of the Charleston Harbor Project, Ms. Virginia Beach of the Lowcountry Open Land Trust, and Mr. Stuart Dawson, Project Coordinator.

Special thanks go to Mr. and Mrs. David Maybank for granting the use of their boat for the survey of the area and to Mr. John Hope for his guided tour of the waterway for the advisory group.

We would like to thank Mr. Joe Heard of the Charleston County Planning Department for his aid in researching information from the South Carolina Statewide Historical Survey and to, again, Ms. Karen McNamara for her help and patience in explaining various zoning and planning rules and regulations.

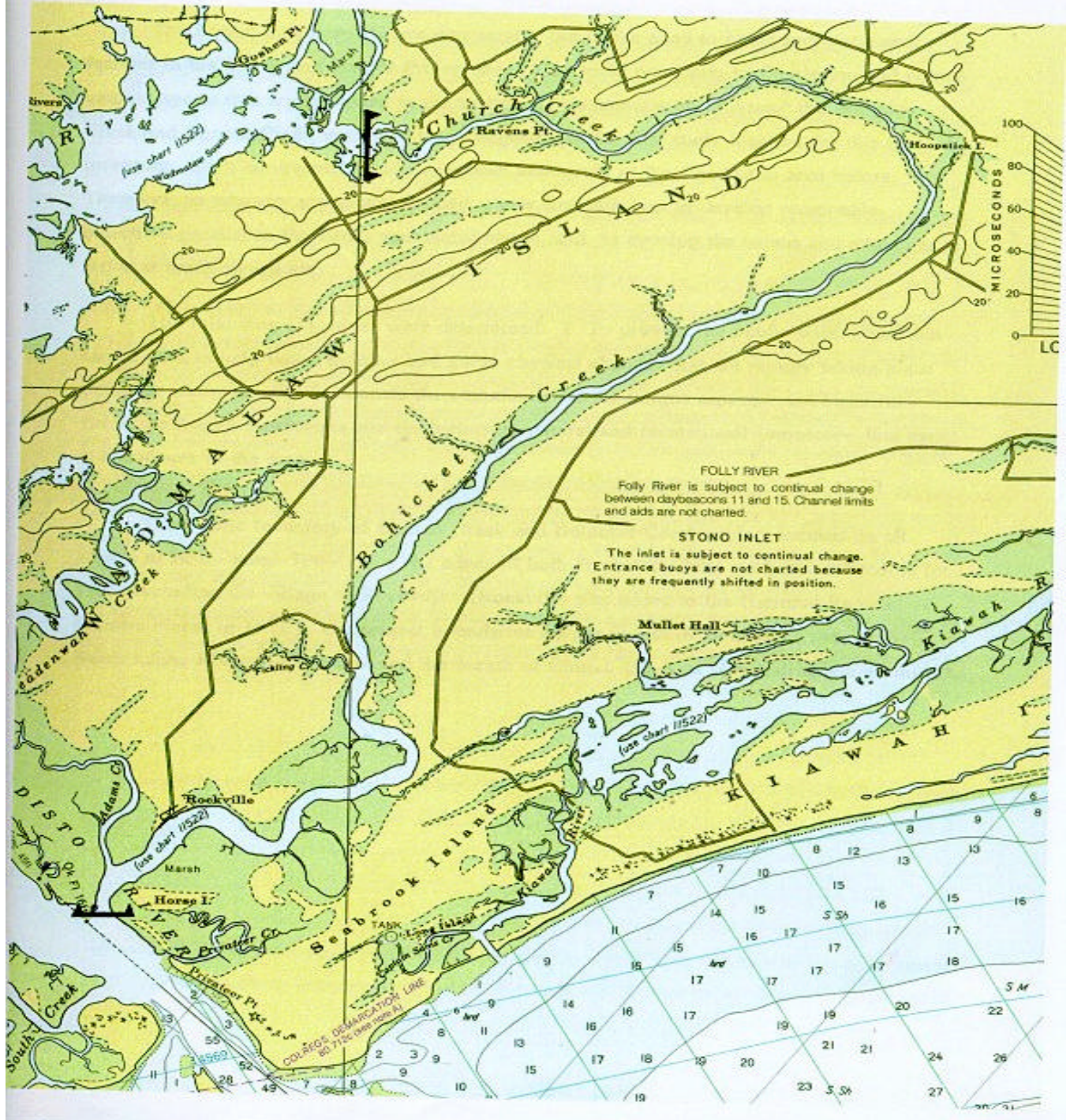
Thanks also to Ms. Katherine Boyle of the South Carolina Wildlife and Marine Resources Department for locating endangered flora and fauna species on USGS maps--an integral part of the reference map; and to Mr. Daniel Carey of the National Trust for Historic Preservation for his insightful suggestions and comments.

We would like to thank Mr. Michael Coker, manager of the Shellfish Sanitation Section of the South Carolina Department of Health and Environmental Control, for his aid

in researching information on shellfish closures in the study area.

Thanks go to Mr. Curtis Joyner of the SCCC for his direction in research on dock numbers and growth in the area, and to Mr. Fritz Aichele for his help in researching a set of aerial photographs to aid in locating and photographing the sites.

MAP OF STUDY AREA



## OBJECTIVES

The Scenic Inventory Project was created out of the need to better monitor scenic features in the Charleston Harbor Project area. Due to its proximity to Charleston and certain unique aspects that are discussed in the section, "Characterization of Area," the Bohicket Creek and Church Creek waterway was designated as the first study location for this type of inventory. Such an inventory had never been conducted in the Charleston area before. Therefore, an advisory group was formed whose first task was to develop reasonable objectives parallel to the initial goal stated above, and to develop the means and strategies to arrive at those objectives.

The following objectives were determined: 1. To provide the public with a tool that can be used to help better monitor and guide physical changes that are rapidly taking place along the waterway. 2. To educate the community on the unique aspects-- the beautiful vistas, the fragile ecosystems and the historical, natural and recreational resources-- that exist in abundance in the area.

The Scenic Inventory of Church Creek and Bohicket Creek project focuses on all parcels of land-- some 300-- along the edges of both creeks as of the tax assessor records for 1993, excluding the village of Rockville. (Rockville was added to the National Register of Historic Places in 1972.) The project boundaries are the mouth of Bohicket Creek at the North Edisto River to the south, and the mouth of Church Creek at New Cut to the northwest.



## PROJECT METHODOLOGY

In order to meet the project objectives, two methods, or formats, were selected. The first, a manual, provides key information on a per parcel basis for people involved in planning and conservation in the area. As something of concern occurs in a given location, the user will have quick access to a detailed summary of information, by parcel, regarding that area. Information is assembled in a concise and efficient format, and is relevant to the conservation value of each parcel. In a sense, the manual is a snapshot of existing conditions of the area on which future decisions can be based.

Information, organized in order of Tax Map Parcel number, includes ownership information, parcel acreage, estimated waterfront footage, zoning information, deed information, Statewide Historic Survey information, endangered species information and information describing features unique to particular parcels where they exist. A section of the manual consists of photographs relating, directly or approximately, to a view of each parcel of land from the waterway. Another section consists of a Tax Map key followed by Tax Maps to aid the user in locating the properties. A number of indexes located towards the beginning of the manual highlight key features of certain parcels that may make them more attractive for conservation efforts. These include large acreage, large waterfront footage, and historic site locations. A reference map illustrates certain features of the area and is intended to be used in conjunction with the manual-- the historic sites, for example, are identified on the map and described briefly in the text.

In order to organize and expedite the gathering of information, a database was designed (Paradox 4.5 for Windows). Information could then be more easily accessed, corrected, organized into tables, and manipulated for page layout and design.

The second project format is an educational slide presentation that illustrates the fragility, the value of the resources, and the interconnectedness of the area. It contrasts the beauty of the area with the side effects of negligent actions and poor planning, with the intent of building awareness in an area that is already beginning to experience accelerated

growth.

An advisory group was formed during the early stages of the project to guide and direct the staff in meeting these objectives. Representatives from the Johns Island Commission, the Wadmalaw Land Planning Committee, the Charleston County Planning Department staff, the National Trust for Historic Preservation, the Charleston Harbor Project of the South Carolina Coastal Council, and the Lowcountry Open Land Trust graciously volunteered their time and expertise in each phase of the project.

Three meetings and a field research trip were held. The advisory group assisted the staff in determining the project formats and in determining the various features of the study area that would be included in the inventory. The advisory group also participated in the design of the manual, the reference map and the slide show to ensure that the final product would best meet their needs.

The result of these efforts is a comprehensive inventory that will hopefully inform and assist-- in the most efficient way possible-- those who wish to become involved in the future management of the Church Creek and Bohicket Creek waterway.

## HOW TO USE THE MANUAL

The Scenic Inventory of Church Creek and Bohicket Creek is intended to be a working manual. It serves as a 1993 snapshot of existing conditions along the two creeks and consists of information, drawn from various sources, relevant to the conservation value of all parcels of land along the waterway. As changes take place along the waterway, the manual will give the user a definable benchmark by which to objectively monitor and evaluate these changes. In a sense it is a workbook of sorts where further information can be added as it unfolds.

The manual is divided into five chapters, or sections, as is seen in the table of contents. Each section gives the user condensed concise information grouped and assimilated in one place. In this, the manual is much like a tool that enables one to arrive at an accurate, summarized overview of any part of the study area quickly and efficiently.

The "Map of Study Area" illustrates the parameters of the project study area. The mouth of the Bohicket Creek at the North Edisto River near the Atlantic Ocean marks the south end. The mouth of Church Creek at New Cut near the Intra-Coastal Waterway marks the boundary to the northwest.

The large map found folded in the rear cover pocket-- an integral piece of the inventory-- is, as is each section, cross-referenceable to the others. This Reference Map locates and highlights certain features in the study area, some of which are identified in the text. These include: historic survey site numbers followed by corresponding tax map numbers, National Register sites, endangered and threatened species in the area, public access points, commercial shrimp docks, conservation easement lands, and marinas. The map is intended to be used in conjunction with the manual and like the manual should be edited and appended at will.

The bulk of the manual is found in two chapters: Parcel Information and Photographic Log of Sites. In the Parcel Information section, information is sorted in order

of tax map parcel number and includes ownership information; property location; high land, marsh, and combined total acreages; zoning information; number of buildings; deed book, page, and date information; and historic site information where it occurs. "RIVER" indicates on which river the parcel is located (C is Church Creek and B is Bohicket Creek) while "BANK" gives the side of the river (JI is Johns Island, WI is Wadmalaw Island). "Additional Information" leaves space at the bottom of each page for notes, addenda, and changes that the user sees fit to make over time.

The Photographic Log of Sites gives the user a sample view of each of the sites. The letter and number in the white square at the bottom left hand corner of each photograph is the Photo ID number. This number allows the user to reference the Parcel Information section from a photograph or a view of a parcel of land of interest from the Parcel Information section. These photographs are approximations and thus do not claim to be accurate for each site. A "@" after the Photo Id number in the indexes and in the Parcel Information chapter indicates that the photograph is a general representation of the parcel of land in question-- not an actual picture of it.

The Indexes of Key Features sorts parcels of land by important features in order to highlight and draw attention to certain ones that may be of considerable conservation value. Index I, Marsh Frontage, sorts parcels of land by tax map number that contain in excess of one thousand feet of marsh front. They are arranged in order of most to least frontage, and include photo ID number, river and river side, and the total number of high acres of each parcel.

Index 2 lists parcels of land by tax map number that appear in the SC Statewide Survey of the State Historic Preservation Office. It includes historic site survey numbers, general descriptions of the sites, photo ID numbers, and the river ("R") and river side ("S") of each parcel. This historic site information also appears on the Reference Map.

Index 3 sorts parcels of land by tax map number that contain over 20 acres of high land, arranged from most to least. Also included are photo ID numbers, river ("R") and river

side ("S") of each parcel, marsh front footages, and the owners' names.

Index 4 sorts parcels of land by owners in alphabetical order, and includes tax map numbers and property locations. This index enables one to access information on a particular site when only the name of the owner is known, since the Parcel Information section is sorted by tax map numbers only.

The Photograph Index Key lists photograph ID numbers in order followed by the corresponding tax map numbers. If one has a particular interest in photograph B18, for example, one can turn to the Photograph Index Key and identify the proper tax map number. This enables the user to turn directly to the respective page of information in the Parcel Information section.

The Scenic Inventory is intended to help the user arrive at important information quickly and efficiently. For the first time, various reports and surveys of the area have been brought together in one document. It is hoped that the information and format will assist those interested in protecting the unique resources of Bohicket and Church Creeks.

If there are any questions about the use of the manual you feel are still unanswered, please contact the Lowcountry Open Land Trust office at (803) 577-6510.

## CHARACTERIZATION OF AREA

There are many reasons why the Bohicket and Church creeks have been chosen for the first scenic inventory of the Charleston Harbor Project. The most compelling factors are these: 1) The waterway is located thirty minutes from downtown Charleston. 2) The traditional rural character of the waterway is relatively intact. 3) The waterway is hydrologically and biologically sensitive. 4) Development pressures are mounting. 5) Local planning groups [the Johns Island Commission and the Wadmalaw Island Land Planning Committee] meet monthly on the two sea islands that border the creeks. The active participation of these two citizen-based, island-wide groups in planning for the future of their community is the best insurance that such a scenic inventory will not gather dust on the shelf. Furthermore, the presence of a major resort development and marina at Seabrook Island, near the mouth of the Bohicket, is testament to the recreational allure of the area and the potential for future development.

Man's relationship with the Bohicket and Church creeks runs deep. Johns and Wadmalaw Islands lie on either side of the two creeks and have always enjoyed a strong sense of identity and place. At the start of the twentieth century, Wadmalaw and Johns were tied together by a bridge, but transportation to other islands or to Charleston was still by boat.

The richness of the creeks and their adjacent lands have long attracted fishermen, hunters and farmers. The shell midden located on Horse Island along Bohicket Creek is evidence of the early presence of Cusabo Indians in these waters. In 1666, an English explorer, Lt. Col. Robert Sandford, sailed into the North Edisto River and up the Bohicket. He wrote of the live oaks, the level land "of habitable height generally -- on which in many places we could see the fields of maize greenly flourishing. . ." and of "a fair and deep creek, or river." Sandford is believed to have landed either at Rockville or Seabrook and claimed the land in the name of King Charles II, calling it "Carolana."

Today, the land along the two creeks probably looks very similar to what Sandford

saw in the 1600s, even with some three hundred new landowners now located along the waterway's twelve and a half-mile course. Broad, moss-laden live oaks stretch their heavy limbs over the water, almost touching the marsh grass growing in the dark, thick mud that buffers the high land from the creeks. Behind the sprawling oaks rise tall, straight pines. The understory is filled with a tangle of wax myrtle, holly, greenbriar and occasional palmettos. The blend of grays and greens and browns against the varying blues of sky and water is as subtle as it is beautiful. The landscape is quintessential Lowcountry, quintessential sea island.

The meandering creeks and sloughs, the wide open bays, and the necklace of islands that punctuate the coastline of South Carolina are dynamic geological creations, molded by the incessant advance and retreat of the Atlantic Ocean. The islands are relatively flat-- the highest points being usually no more than 15 feet above sea level on the sea islands, which lie along the mainland, and less than that on the barrier islands, which face the ocean. Johns Island consists of 100 square miles of marsh and high land, one of the largest islands along the United States coastline. Wadmalaw Island is smaller, at 43 square miles.

The sea island landscape differs from the mainland, shaped by the wind and salt spray and surrounded by water. The extensive marshlands along the creeks are a critical feature, visually and ecologically. This fragile edge is one of the most productive ecosystems on earth-- where the ebb and flow of the tides exchange tons and tons of nutrients between the ocean and the land every day. Ninety percent of all fish harvested near shore fish that sold commercially spend a part of their lives in the salt marsh. Four working shrimp docks, two marinas, countless crab pots, fishermen lining Esau Jenkins bridge, herons plying the mud flats, and the weekend crowd of boat trailers at Cherry Point landing are all indicative of the richness of these marshes and creeks.

But things are changing. While fishing and truck farming remain important industries along the banks of the Bohicket and Church creeks, resort and residential development are moving in. Houses take the place of vegetation along the creek banks; trees are cut down

to allow for a view and a breeze; "rip rap" is dumped along the banks to halt erosion from construction and boat traffic: docks, complete with various superstructures, are built out over the marsh to provide access to the water-- suddenly the landscape looks very different. For example, from 1982 to 1989, there was a thirty-five percent increase in the number of docks along Bohicket and Church creeks. In 1993 alone, fifty-seven new docks were permitted in one small stretch of Bohicket Creek to accommodate two new developments-- amounting to nearly a fifty percent increase in the total number of docks on both creeks. Current zoning on the Wadmalaw side allows for houses and docks to be built about every one hundred and fifty feet along the waterway; on the Johns Island side, about every seventy-five feet. Some lots that were platted before the most recent zoning laws are narrower.

Next door to Seabrook Island, the Department of Health and Environmental Control has recently granted a water quality certification permit for the construction of a 61 acre marina basin (Andell Lock Harbor) that will open into Bohicket Creek. Four hundred docks will be constructed to accommodate 198 lots and 202 commercial marina slips. The proposed marina will be located directly behind the Bohicket Yacht Club which by itself, currently includes 194 boat slips along the creek. Residents of nearby Rockville, in particular, complain that the increased boat traffic from the existing marina has accelerated erosion considerably.

Meanwhile, all of Bohicket Creek-- from the Bohicket Yacht Club to the Esau Jenkins Bridge-- and all of Church Creek have been restricted or prohibited from shellfish harvesting because of elevated bacteria levels. This is in spite of the fact that the three known point-source sewage discharges into the waterway-- from St. Johns High school, Sea Island Comprehensive Health Care and Dunmovin subdivision-- were removed in 1989 as a result of a lawsuit filed by residents of Church Creek. And in 1987, after a two-year effort by local residents and conservation groups, a significant portion of this waterway was upgraded to the highest water quality rating awarded by the state-- ORW (Outstanding Resource Waters).



The Department of Health and Environmental Control has suggested that other sources, namely nonpoint-source pollution, could be the cause of the elevated bacteria levels that have made shellfish harvesting unsafe; however this assessment is handicapped by a lack of data. The Department's 1992 survey cites storm water runoff as a major source of contamination in the area -- sediment and pollutants carried over and through the soil by rainfall into the creeks. These pollutants include runoff and malfunctions from septic tanks, which are used exclusively for domestic wastewater disposal throughout the area.

Storm water runoff also includes pesticides and fertilizers, not only from farms, but from lawns and gardens as well. Most of the chemicals and fertilizers that homeowners typically apply to their yards eventually wash into the creeks. A natural, vegetative buffer along the marsh edge can help slow down and absorb harmful runoff, as well as retain scenic beauty.

Oil and gas from boats, chemicals from roofs and treated lumber, sediment from new construction, and increased use of hard pavement for roads and driveways (rather than more porous surfaces) all contribute to the declining health of our waterways. The Environmental Protection Agency reports that these "nonpoint" pollutants-- pollutants not discharged through a pipe-- account for sixty-five percent of the pollution in streams and rivers in the U. S.

What makes the Bohicket and Church creeks so particularly sensitive to pollutants is the fact that very little tidal flushing and dilution occurs. Because the waterway is circular in nature and lacks any major freshwater input from a river, pollutants tend to remain suspended in the creeks for a long time, sloshing back and forth-- not out-- with the tides.

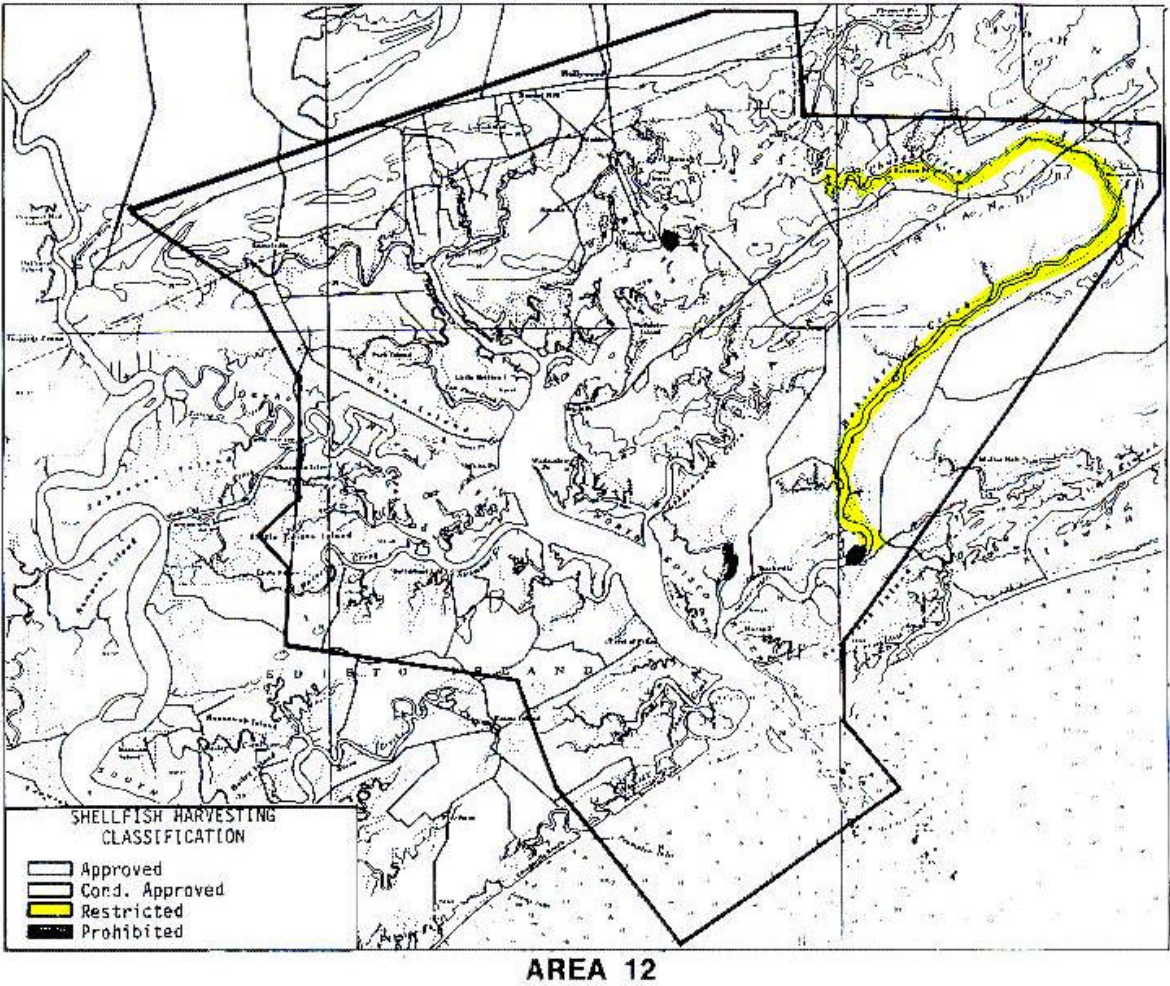
Until more data is gathered and more information known about this fragile creek system, we may unknowingly be destroying the proverbial "goose that laid the golden egg." The Scenic Inventory is an attempt to document the status of Bohicket and Church creeks largely from a visual perspective. What did the waterway look like in 1993? What clues

does this snapshot in time give us about current trends and their effect on the creeks' overall health? What aspects of the landscape are worth saving for our children's children?

As this manual goes to press, the Town of Seabrook, the Johns Island Commission and the Wadmalaw Island Land Planning Committee have formally requested of the S.C. Coastal Council that a Special Area Management Plan (SAMP) be conducted for Bohicket Creek. Such a study would gather needed data on the water quality of the creek and the impact of adjacent land uses. Simultaneously, a citizens' group is preparing to launch a volunteer monitoring program on both Bohicket and Church creeks, to assist in the gathering of water samples and related data. In addition, a graduate marine biology class at the Citadel has recently undertaken a study of the hydrology of the waterway. Opportunities are surfacing to protect the creeks, if only citizens will become involved.

Bohicket and Church creeks are at a critical juncture in their long association with mankind. For every day that each of us reaps the bountiful harvest of this beautiful waterway-- whether for nourishment of the body or soul-- an equivalent amount of time must be spent taking care of it, making sure that we leave something of its beauty and richness for the next generation.

Figure 2. Existing shellfish harvesting classification in Area 12.



## DIRECTORY FOR CITIZEN INVOLVEMENT

1. Charleston County Planning Board: Appointed by the Charleston County Council to review, oversee and enforce the zoning ordinances of Charleston County. Meetings are open to the public and occur on the first and third Mondays of every month at four p.m. at the County Council chambers.

2 Courthouse Square  
Charleston, SC 29401  
(803) 723-6739

2. Charleston Harbor Project: The Charleston Harbor Project is a five-year Special Area Management Plan of the South Carolina Coastal Council which is funded by the National Oceanic and Atmospheric Administration. The Charleston Harbor Project has been in existence since 1991 with a primary goal of maintaining and improving the water quality of the estuary while maintaining its many uses and resources. The Charleston Harbor estuary is composed of the watersheds surrounding the Ashley, Cooper, Wando, and Stono rivers. The project's boundaries extend from the North Edisto river inland to Lake Moultrie, around to the Isle of Palms.

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The Charleston Harbor Project  
4130 Faber Place, Suite 302  
Charleston, SC 29405  
(803) 747-4323

3. Harborwatch: Not for profit volunteer monitoring network for Charleston Harbor and surrounding areas. Citizens are trained to collect water samples and other data pertaining to the health of the watershed.

c/o Dr. Melvin H. Goodwin  
38 Wentworth Street  
Charleston, SC 29401  
(803) 577-5697

4. Johns Island Commission: The Johns Island Commission meets monthly, on the first Thursday of each month at 7:15 p.m., at the office of Berkeley Electric on Johns Island (Maybank Highway). The Environmental Committee meeting precedes the general meeting and begins at 6:30 p.m. in the same building. These meetings are open to the public and input is encouraged. Major points and problems should be submitted before the meetings so that the agenda can be adjusted accordingly.

(JIC)  
c/o Mr. George W. Miller (Chairman)  
The John's Island Commission  
P.O. Box 190  
John's Island, SC 29455

5. Lowcountry Open Land Trust: Private, nonprofit land preservation group that assists communities and landowners in placing permanent, voluntary conservation restrictions or easements on lands of scenic and aesthetic significance in the Lowcountry.

P.O. Box 1293  
Charleston, SC 29402  
(803) 577-6501

6. South Carolina Coastal Conservation League: Not for profit, environmental advocacy and education group involved in forest lands, water quality, sustainable development and land use planning issues along the coast. The league also has established a Coastal Caretakers volunteer network.

P.O. Box 1756  
Charleston, SC 29402  
(803) 723-8035

7. South Carolina Coastal Council: State agency and appointed council set up to review, oversee and enforce the Coastal Zone Management Act; in particular, activities such as dock construction and filling that alter the "critical area", or marshlands. Meetings of the Council are held monthly and are open to the public.

DHEC-Office of Ocean & Coastal Resource Management  
1362 McMillan Avenue, Suite 400  
Charleston, SC 29405  
(803) 744-5838

8. South Carolina Department of Health and Environmental Control: State agency set up to review, oversee and enforce water quality standards throughout the state. The agency regulates all discharges into waterways, such as sewage and chemicals, and recently enacted a regulatory program governing storm water runoff.

2470 Air Park Road  
Charleston, SC 29406  
(803) 740-1590

9. United States Coast Guard/ Marine Safety Office: Federal agency responsible for the enforcement of the Marine Pollution Act of 1973/ 78 (MARPOL) and the Oil Pollution Act of 1990. The U.S. Coast Guard investigates any threat to coastal navigable waterways. For example, chemical or oil spills (no matter how small) or the dumping of non-biodegradable materials, such as plastic bags or drink containers. Citizens who witness a violation should contact:

Marine Safety Office, Charleston  
Port Operations  
196 Tradd Street  
Charleston, SC 29401

10. Wadmalaw Island Land Planning Committee: Volunteer, community group organized to review, oversee, and enforce the Wadmalaw Island Land Plan/ Zoning Ordinance and to address issues of community concern on the second Tuesday of every month at the Katy Hill Road Community Center on Wadmalaw Island and are open to the public.

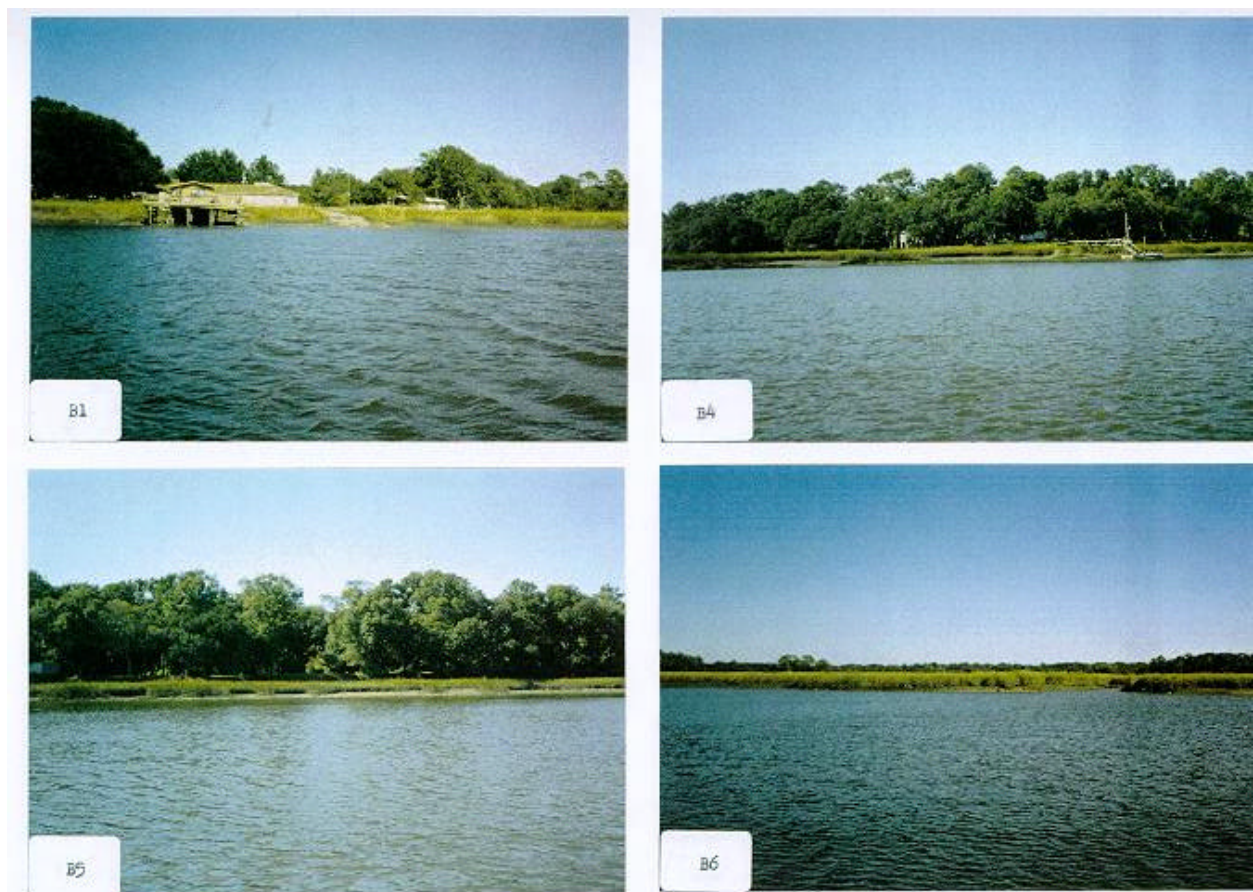
c/o Charles M. Thompson (Chairman)  
6204 Rockefeller Road  
Wadmalaw Island, SC 29487  
(803) 559-1353







## Two Sample Pages of the Photo Log





**For more information on this document please contact :  
DHEC-Office of Ocean & Coastal Resource Management  
1362 McMillan Avenue, Suite 400  
Charleston, SC 29405**

**(843) 744 - 5838**

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